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TUROCY & WATSON, LLP 127 Public Square 57th Floor, Key Tower CLEVELAND, OH 44114			EXAMINER KIM, PAUL	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/820,947	<b>Applicant(s)</b> BRILL ET AL.	
	<b>Examiner</b> PAUL KIM	<b>Art Unit</b> 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-16,34 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16,34 and 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. This Office action is responsive to the following communication: Amendment filed on 20 March 2009.
2. Claims 1-3, 5-16, 34, and 37-42 are pending and present for examination.

### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 20 March 2009 has been entered.

### ***Response to Amendment***

4. Claims 1, 6, 34, and 37 have been amended.
5. Claim 36 has been cancelled.
6. No claim has been newly added.

### ***Claim Objections***

7. **Claims 1 and 6** are objected to because of the following informalities:
  - a. Claim 1: In line 13 of the present claim, applicant fails to use a proper conjunction following the semicolon. Additionally, in line 17 of the present claim, applicant fails to qualify the term nature with a proper article such as "a" or "the".
  - b. Claim 6: in line 1 of the present claim, applicant fails to use a proper conjunction following the comma.Appropriate correction is required.

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***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-3, 5-7, 11, 13, 34, and 37-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight et al (U.S. Patent No. 6,493,703, hereinafter referred to as KNIGHT), filed on 11 May 1999, and issued on 10 December 2002, in view of Williams et al (USPGPUB No. 2004/0210550, hereinafter referred to as WILLIAMS), filed on 30 August 2001, claiming priority to 1 September 2000, and published on 21 October 2004, in view of Holtzman et al (U.S. Patent No. 7,185,065, hereinafter referred to as HOLTZMAN), filed on 13 June 2001, claiming priority to 11 October 2000, and issued on 27 February 2007, in further view of Bates et al (U.S. Patent No. 6,963,902, hereinafter referred to as BATES), filed on 18 July 2001, and issued on 8 November 2005, and in further view of Presnell et al (U.S. Patent No. 6,182,067, hereinafter referred to as PRESNELL), filed on 29 May 1998, and issued on 30 January 2001.

10. **As per independent claim 1**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

A system that ranks search results, comprising a processor executing the following components:

a ranking component that determines relevance of respective search results generated from a search associated with one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room via one or more feature-based relevance functions wherein features of the function are based at least on one or more of global thread properties,

comprising at least a thread depth defined over a thread comprising one or more messages that include at least a message core and a message body {See WILLIAMS, Para. [0102], wherein this reads over "[t]hese can be combined with commonplace message board attributes, such as thread depth, date of post . . . "} one or more posting-specific thread properties, one or more attributes of a person posting messages or one or more newsgroups {See KNIGHT, C9:L60-65, information is broken down and sorted into a number of subject matter areas, which subject matter areas represent

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logical collections of content according to a (potentially different) set of service provider (or user) specific rules, filters, criteria, etc"; and C11:L32-56, wherein this reads over "in response to the user specified search parameters, a request is sent to community search robot"} and attributes of a person posting the messages {See HOLTZMAN, C8:L41-56, wherein this reads over "them message information collected by message collection subsystem 12 may comprise one or more of the following attributes" and "Poster's information"},

the attributes comprising at least a number of posting per time duration {See HOLTZMAN, C12:L39-49, wherein this reads over "[f]or a given message m, T is the amount of time it took for p unique pseudonyms to post a message"}, a number of newsgroups posted to {See HOLTZMAN, C8:L57-58, wherein this reads over "Community – the community in which the message was posted"} and a number of postings that have no responses {See BATES, C3:L63-C4:L5, wherein this reads over "[a] skip score may be represented by one or more data structures containing data representative of whether visitors read or skip a particular message"}; and

- a function generator component that generates the relevance functions such that search results are ordered based on their respective relevancies {See KNIGHT, C11:L53-60, wherein this reads over "a group of the same matching the user's query criteria are easily and rapidly located. These entries are then transmitted to the user's computer system, and presented in abbreviated listing format (i.e., author, date, excerpt from entry etc.) within a group listing area"}; the search is selectively scoped based at least on a structure of the thread comprising the one or more messages {See PRESNELL, C14:L1-17, wherein this reads over a search string 266 is created 264 by concatenating the terms contained in the knowledge concept definition" and "[i]f only certain locations within documents are to be searched (e.g. title) the search string 266 is modified 265 to reflect this"} wherein at least one of the features is based on inferred labels on edges between an existing message in the thread and one or more of a parent or child of the message wherein the labels determine nature of a respective message in the thread and are automatically derived from content of the one or more messages within the thread.

With respect to the newly added limitation of having a feature "based on inferred labels on edges between an existing message in the thread and one or more of a parent or child of the message wherein the labels determine nature of a respective message in the thread and are automatically derived from content of the one or more messages within the thread," it is noted that KNIGHT discloses that "[i]f a user responds with a reply posting to an original posting in a particular subject matter area, the present invention tags the reply posting with a parameter field specifying that the reply posting should also be classified in the same area as the original posting." See KNIGHT, C12:L23-28. Additionally, it is noted that Holtzman discloses an invention wherein a data store may store "an in-reply-to field, i.e., the message ID of the message to which each message was reply." See Holtzman, col. 7, lines 4-16. Accordingly, wherein the message information collected within the data store includes an in-reply-to field which identifies the parent message in which it is a reply to, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made that the combination of inventions suggested by KNIGHT, WILLIAMS, HOLTZMAN, and BATES would indeed disclose an invention wherein a feature is based upon inferred labels.

While KNIGHT may fail to expressly disclose attributes of a person posting the messages, HOLTZMAN and BATES disclose the specifically recited attributes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions suggested by KNIGHT, WILLIAMS, HOLTZMAN, and BATES.

One of ordinary skill in the art would have been motivated to do this modification in order to collect and filter threads according to user attributes.

While the combination of KNIGHT, WILLIAMS, HOLTZMAN, and BATES may fail to expressly disclose a search which is selectively scoped based at least on a structure of one or more messages, PRESNELL discloses an invention wherein the search of a document may be limited in scope to a particular portion of a document (e.g. the title or the body). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the aforementioned inventions such that a search of the messages may be limited according to the title or the body.

One of ordinary skill in the art would have been motivated to do this modification such that a message board may be searched according to a limited scope or area of the message.

11. **As per dependent claim 2**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the one or more global thread properties include at least one of:

- a number of messages in a thread;
- a thread depth;
- a thread maximal branching factor;
- a thread linguistic property;
- a posting depth;
- a number of descendents of a posting;

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a number of children in a posting;

a number of postings per time duration;

a number of newsgroups posted;

a number of postings that have no responses;

the relevant functions utilize one or more newsgroups based on a probability that a posting is relevant given the posting is from a particular newsgroup, or

a probability a posting from a particular newsgroup is relevant given a query {See KNIGHT, C11:L53-60, wherein this reads over "a group of the same matching the user's query criteria are easily and rapidly located. These entries are then transmitted to the user's computer system, and presented in abbreviated listing format (i.e., author, date, excerpt from entry etc.) within a group listing area"}.

12. **As per dependent claim 3**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the relevance functions are generated based on one or more of scoped lexical information, a digital artifact attribute, or a source repository attribute {See KNIGHT, C9:L60-65, information is broken down and sorted into a number of subject matter areas, which subject matter areas represent logical collections of content according to a (potentially different) set of service provider (or user) specific rules, filters, criteria, etc"}.

13. **As per dependent claim 5**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the search results are further associated with searches over data associated with one or more of a mailing list, a wiki, a web page, a database {See KNIGHT, C15:L19-33, wherein this reads over "[t]his query is sent to community search robot 231 as noted above, so the user can query all the records in database 242 on server 220"}, or a list.

14. **As per dependent claim 6**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the function generator generates the relevance functions based on at least one of a training set, a feature set, a probability, an inference, a classifier, a heuristic, or user specified criteria {See KNIGHT, C9:L60-65, information is broken down and sorted into a number of subject matter areas, which subject matter areas represent logical collections of content according to a (potentially different) set of service provider (or user) specific rules, filters, criteria, etc"}.

15. **As per dependent claim 7**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

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The system of claim 1, the relevant functions are refined based on a user's response to the ranked search results {See KNIGHT, C12:L23-28, wherein this reads over "[i]f a user responds with a reply posting to an original posting in a particular subject matter area, the present invention tags the reply posting with a parameter field specifying that the reply posting should also be classified in the same area as the original posting"}.

16. **As per dependent claim 11**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the relevance functions are generated via machine learning {See KNIGHT, C12:L18-23, wherein this reads over "the present invention also intelligently classifies and stores message by subject matter area/class/subclass in advance based on understanding the context of the posting"}.

17. **As per dependent claim 13**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the one or more feature-based relevance functions utilize a features that are obtained by extracting information from digital artifacts {See KNIGHT, C15:L19-33, wherein this reads over "[t]his query is sent to community search robot 231 as noted above, so the user can query all the records in database 242 on server 220"}.

18. **As per dependent claim 34**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, the one or more features based relevance functions determine relevance of a posting by utilizing an occurrence of one or more of a word, a word class or a phrase in a thread position relative to a posting {See KNIGHT, C12:L16-18, wherein this reads over "each posting is sorted and/or tagged with one or more additional parameter field(s) specifying one or more categories which such posting should fall under"}.

19. **As per independent claim 37**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

A system that ranks search results, comprising the following means stored in a computer memory:

means for determining relevance of respective search results selected from one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room via one or more feature-based relevance functions wherein features of the function are based at least on one or more of global thread properties,

comprising at least a thread depth defined over a thread comprising one or more messages that include at least a message core and a message body {See WILLIAMS, Para. [0102], wherein this reads over "[t]hese can be combined with commonplace message board attributes, such as thread depth, date of post . . ."} one or more posting-specific thread properties, one or more attributes of a person posting



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messages or one or more newsgroups {See KNIGHT, C9:L60-65, information is broken down and sorted into a number of subject matter areas, which subject matter areas represent logical collections of content according to a (potentially different) set of service provider (or user) specific rules, filters, criteria, etc"; and C11:L32-56, wherein this reads over "in response to the user specified search parameters, a request is sent to community search robot"} and attributes of a person posting the messages {See HOLTZMAN, C8:L41-56, wherein this reads over "them message information collected by message collection subsystem 12 may comprise one or more of the following attributes" and "Poster's information"},

the attributes comprising at least a number of posting per time duration {See HOLTZMAN, C12:L39-49, wherein this reads over "[f]or a given message m, T is the amount of time it took for p unique pseudonyms to post a message"}, a number of newsgroups posted to {See HOLTZMAN, C8:L57-58, wherein this reads over "Community – the community in which the message was posted"} and a number of postings that have no responses {See BATES, C3:L63-C4:L5, wherein this reads over "[a] skip score may be represented by one or more data structures containing data representative of whether visitors read or skip a particular message"}; and

means for generating the relevance functions that facilitate ordering the search results based on their respective relevancies {See KNIGHT, C11:L53-60, wherein this reads over "a group of the same matching the user's query criteria are easily and rapidly located. These entries are then transmitted to the user's computer system, and presented in abbreviated listing format (i.e., author, date, excerpt from entry etc.) within a group listing area"} wherein the search has variable scope based at least on a structure of the thread comprising the one or more messages comprising at least a message core with text of a single message within the thread and a message body including text of a plurality of messages structurally related to the single message within the thread {See PRESNELL, C14:L1-17, wherein this reads over a search string 266 is created 264 by concatenating the terms contained in the knowledge concept definition" and "[i]f only certain locations within documents are to be searched (e.g. title) the search string 266 is modified 265 to reflect this"} at least one of the features is based on inferred labels on edges between an existing message in the thread and one or more of a parent or child of the message wherein the labels determine nature of a respective message in the thread and are automatically derived from content of the one or more messages within the thread.

While KNIGHT may fail to expressly disclose the limitation of having a feature "based on inferred labels on edges between an existing message in the thread and one or more of a parent or child of the message wherein the labels determine nature of a respective message in the thread and are automatically derived from content of the one or more messages within the thread," Holtzman discloses an invention wherein a data store may store "an in-reply-to field, i.e., the message ID of the message to which each message was reply." See Holtzman, col. 7, lines 4-16. Accordingly, wherein the message information collected within the data store includes an in-reply-to field which identifies the parent message in which it is a reply to, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the combination of inventions suggested by KNIGHT, WILLIAMS,

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HOLTZMAN, and BATES would indeed disclose an invention wherein a feature is based upon inferred labels.

While KNIGHT may fail to expressly disclose attributes of a person posting the messages, HOLTZMAN and BATES disclose the specifically recited attributes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions suggested by KNIGHT, WILLIAMS, HOLTZMAN, and BATES.

One of ordinary skill in the art would have been motivated to do this modification in order to collect and filter threads according to user attributes.

While the combination of KNIGHT, WILLIAMS, HOLTZMAN, and BATES may fail to expressly disclose a search which is selectively scoped based at least on a structure of one or more messages, PRESNELL discloses an invention wherein the search of a document may be limited in scope to a particular portion of a document (e.g. the title or the body). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the aforementioned inventions such that a search of the messages may be limited according to the title or the body. Furthermore, it is noted that said scope may be limited to the message core (i.e. the body) of the single message and the message body of the reply messages related to the single message within the message board.

One of ordinary skill in the art would have been motivated to do this modification such that a message board may be searched according to a limited scope or area of the message.

20. **As per dependent claim 38**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 37, further comprising means for automatically training the relevance functions from labeled data {See KNIGHT, C20:L31-35, wherein this reads over "the present invention is self-tuning, or auto-configuring, in the sense that it intelligently monitors 'feedback' – interests of its subscribers and uses this information to dynamically build new content of the same nature"}.

21. **As per dependent claim 39**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

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The system of claim 3, wherein the scope lexical information indicates extent of a search, wherein the scope is limited or includes all repositories and associated information {See HOLTZMAN, C8:L57-58, wherein this reads over "Community – the community in which the message was posted"}.

22. **As per dependent claim 40**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 39, wherein the search is scoped over one or more of at least a message CORE {See HOLTZMAN, C8:L64, wherein this reads over "Body – the message body as defined above"}, a complete message body, all message in the thread, or all messages in a sub tree with a particular posting as a root.

23. **As per dependent claim 41**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 40, the one or more features based relevance functions utilize one or more of text-based relevance scores for respective scoping {See HOLTZMAN, C11:L61-C12:L8, wherein this reads over "Relevance score – an indication of whether the message is truly relevant to the intended topic"}.

24. **As per dependent claim 42**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, and PRESNELL, discloses:

The system of claim 1, wherein the message core comprises text of a single message and the message body comprises text of a plurality of messages comprising one or more of prior messages or descendents {See WILLIAMS, Figure 6B}.

25. **Claim 8-9 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over KNIGHT, in view of WILLIAMS, HOLTZMAN, BATES, and PRESNELL, an in further view of Official Notice.

26. **As per dependent claim 8**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art that "the relevance functions are probabilities that respective digital artifacts are relevant to a search." That is, one of ordinary skill in the art would readily acknowledge that relevance functions are simply a measure of how closely related the user's query is related to the data source. Since Applicant has failed to traverse the examiner's assertion of official notice, it is noted that the aforementioned common knowledge or well-known in the art statement is taken to be admitted prior art.

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27. **As per dependent claim 9**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art that the "relevance function is defined as  $\text{Relevance}(V(\text{posting}, \text{query}))$ , which is a relevance weight of a posting given a query, wherein function  $(V(\text{posting}, \text{query}))$  returns a set of features and feature values for a particular posting and query." That is, since relevance functions are simply a measure of how closely related the user's query is related to the data source, the relevant function would necessarily contain and operate upon the variables of the "posting" and the "query." Since Applicant has failed to traverse the examiner's assertion of official notice, it is noted that the aforementioned common knowledge or well-known in the art statement is taken to be admitted prior art.

28. **As per dependent claim 12**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art that the machine learning includes "a linear regression." That is, one of ordinary skill in the art would readily acknowledge that a linear regression is a commonly used regression method in statistics wherein it provides for a relation of the response to the explanatory variables which is a linear function of some parameters. Since Applicant has failed to traverse the examiner's assertion of official notice, it is noted that the aforementioned common knowledge or well-known in the art statement is taken to be admitted prior art.

Additionally, it is noted that because the remainder of features (i.e. "a non-linear regression, and a support vector machine") listed in the present claim are optionally recited within the claim, they will not be given further consideration nor will prior art be applied for the purposes of this examination.

29. **Claims 10 and 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over KNIGHT, in view of WILLIAMS, HOLTZMAN, BATES, and PRESNELL, in further view of Vanderveldt et al (U.S. Patent No. 6,266,668, hereinafter referred to as Vanderveldt), filed on 4 August 1999, and issued on 24 July 2001.

30. **As per dependent claim 10**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, PRESNELL and VANDERVELDT, discloses:

The system of claim 1, the relevance functions associate relevance weights with respective search results and the ranking of the search results is based on the

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relevance weight {See Vanderveldt, C4:L43-46, wherein this reads over "allowing reduced weight for synonym and possible misspelling matches"}.

While KNIGHT may fail to expressly disclose the ranking of search results based on relevance weights, VANDERVELDT discloses the use of reduced weights for certain matches. Accordingly, the use of said reduced weights will result in certain matches being ranked lower than others such that lower ranked matches are listed lower in the list. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions suggested by KNIGHT and VANDERVELDT.

One of ordinary skill in the art would have been motivated to do this modification in order to provide the ranking of search results based on the relevance weights.

31. **As per dependent claim 14**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, PRESNELL, and VANDERVELDT, discloses:

The system of claim 1, further comprising a thresholding component that defines one or more acceptable relevance levels in order to mitigate providing non-relevant search results to a user {See Vanderveldt, C4:L54-65, wherein this reads over "[a]fter a maximum number of links have been followed, or the total relevance of pages indexed exceeds a threshold, the search stops and results 0 are returned to the user"}.

While KNIGHT may fail to expressly disclose a thresholding component that defines one or more acceptable relevance levels, VANDERVELDT discloses the use of a threshold in limiting the number of search results returned to a user. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions suggested by KNIGHT and VANDERVELDT.

One of ordinary skill in the art would have been motivated to do this modification in order to limit results to a user-designated threshold.

32. **As per dependent claim 15**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, PRESNELL, and VANDERVELDT, discloses:

The system of claim 14, the acceptable relevance levels are configured for at least one of an application and the user {See Vanderveldt, C9:L1-5, wherein this reads over "[d]epending on the profile, the presentation will rate, weigh and organize each search to present the most relevant and related topics of interest"}.

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33. **As per dependent claim 16**, KNIGHT, in combination with WILLIAMS, HOLTZMAN, BATES, PRESNELL and VANDERVELDT, discloses:

The system of claim 14, the acceptable relevance levels dynamically adjust based on the user's response to search results {See Vanderveldt, C9:L18-21, wherein this reads over "[o]ver time, the profile information database will continue to grow and become more intelligent. Therefore, each subsequent search will become more intelligent and relevant to the previous user"}.

### ***Response to Arguments***

34. Applicant's arguments filed 20 March 2009 have been fully considered but they are not persuasive.

a. Claim Rejections under 35 U.S.C. 103

Applicant asserts the argument that Knight et al fails to disclose or suggest "inferring labels that determine nature of a message within a thread and employing such labels for inferring relevance of the message to a search." See Amendment, page 8. The Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted Knight discloses an invention wherein a reply posting in response to an original posting is tagged with a parameter field specifying that the reply should be classified in the same area as the original posting. Accordingly, for purposes of this examination, it is noted that said tagging with a parameter field would accurately read upon the recited limitation wherein "at least one of the features is based on inferred labels" as the invention disclosed in Knight tags the parameter field according to whether a posting is a reply or not (i.e. an inferred label). Furthermore, wherein the reply posting is a response to an original posting, it would have been obvious to one of ordinary skill in the art that, given the broadest reasonable interpretation of "automatically derived from content," the tagging of reply posting would be "derived from content."

Secondly, Applicant asserts the argument that Knight et al fails to teach the feature of utilizing "the occurrence of a word/phrase or word class in position within a thread relative to a posting to determine relevance of the posting." See Amendment, page 9. The Examiner

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respectfully disagrees. It is noted that wherein Knight et al discloses the tagging of a posting as a reply, it would have been obvious to one of ordinary skill in the art that said tagging may be used to determine that relationship between an original posting and a reply posting (i.e. the relevance of a posting).

Thirdly, Applicant asserts the argument that Holtzman et al and Bates et al fail to disclose the limitation of "wherein the search is selectively scoped based at least on a structure of the one or more messages." See Amendment, page 9. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the present case, it is noted that the prior art reference of Presnell et al discloses the recited limitation.

Lastly, Applicant asserts the argument that Presnell et al fails to disclose the same method of "scoping search over a message thread comprising one or more messages as messages within a discussion thread are not clearly formatted in the same manner as other documents." See Amendment, page 10. The Examiner respectfully disagrees. It is noted that the present claim recites the limitation wherein the relevance of search results generated from a search associated with one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room." Wherein one of ordinary skill in the art would have known that a blog takes the form a website containing rich markup language, the invention as disclosed by Presnell et al would appropriately allow for a scoped search according to HTML tags.

Accordingly, for the aforementioned reasons above, the claim rejections under 35 U.S.C. 103 are maintained.

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***Conclusion***

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL KIM whose telephone number is (571)272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul Kim/

Paul Kim  
Examiner, Art Unit 2169  
TECH Center 2100

/PK/